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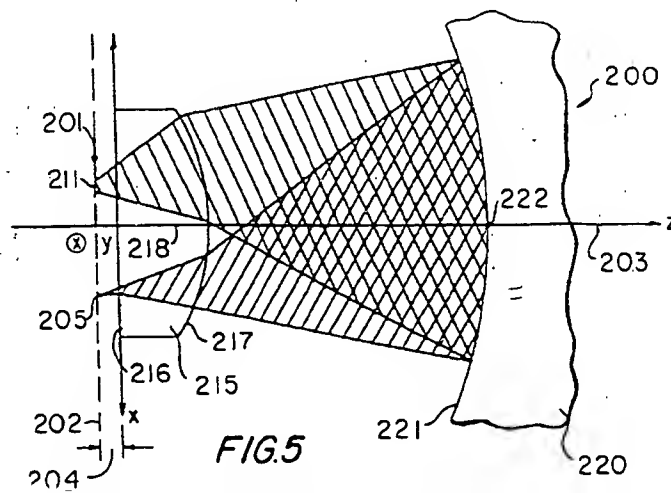
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### (54) Modified concentric spectrograph

(57) A modified concentric spectrograph for diffracting light with high stray light rejection without astigmatism is provided. The modified spectrograph includes a grating, a lens, and at least one entrance port and one exit port. The grating has a concave surface and a meridian plane with a first side and a second side. The lens has a substantially planar surface and a convex surface. Preferably, the convex and concave surfaces are sub-

stantially concentric. The ports are substantially located on different sides of the meridian plane near a focal plane of the spectrograph. The position of a focal plane may be modified using an optically transmissive triangular prism with a reflective surface, and an optically transmissive block. The position of a focal plane may further be modified with one or more optically transmissive plates. Methods for using the spectrograph are also provided.



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## EUROPEAN SEARCH REPORT

Application Number  
EP 98 30 1487

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.6)
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A	L.MERTZ: "Concentric Spectrographs" APPLIED OPTICS, vol. 16, no. 12, December 1977 (1977-12), pages 3122-3124, XP000861770 Optical Society of America, Washington, US * page 3123 * ---	1, 15, 46, 58, 64, 66, 67, 69-71	TECHNICAL FIELDS SEARCHED (Int.Cl.6)
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The present search report has been drawn up for all claims			
Place of search <b>THE HAGUE</b>		Date of completion of the search <b>18 February 2000</b>	Examiner <b>De Buyzer, H</b>
<p><b>CATEGORY OF CITED DOCUMENTS</b></p> <p>X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document</p> <p>T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons &amp; : member of the same patent family, corresponding document</p>			

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## EUROPEAN SEARCH REPORT

Application Number  
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Place of search THE HAGUE		Date of completion of the search 18 February 2000	Examiner De Buyzer, H
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ANNEX TO THE EUROPEAN SEARCH REPORT  
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